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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,752	11/07/2001	Michael P. Iverson	1082-011	7854

7590 07/05/2005

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EXAMINER

PHAN, THAI Q

ART UNIT PAPER NUMBER

2128

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,752

Applicant(s)

IVERSON ET AL.

Examiner

Thai Q. Phan

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/1/02 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/30/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office Action is in response to patent application S/N: 10/005,752, filed on 11/07/2001. Claims 1-46 are pending in the action.

Information Disclosure Statement

Information Disclosure Statement filed on Jan. 30, 2003 was considered.

Drawings

The informal drawings are not of sufficient quality. Accordingly, replacement drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to this Office action. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4, 7, 12, 24, 26, 32, 38, and 43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Here are some example problems in the claims.

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Claims 4, 32, and 43 address a plurality of problems but do not provide or point out how to solve, to implement a process to solve, problem requirements, etc. for such addressed problems.

Claims 3 and 18 cited "Program Selections" and fail to show the claimed subject matter after the selection.

Cited feature "Manner of execution" in claim 7 fails to show the claimed invention.

Claims 12, 26, and 38 required "computed tomography taken from a missile."

Claims 12, 26, and 38 do not show or to point out what the computed tomography taken from a missile herein refers to. What is the computed tomography taken from a missile?

As per claim 24, as cited "Missile Maintenance Application" is incomplete and fails to claim the subject matter.

Corrections are required to all 112 rejection to make the claims distinguishable.

Claims 31-40 are objected for improper dependency. Corrections are required.

Claims 42-46 are objected for improper dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima, Shuichi, US patent no. 5,838,594.

As per claim 1, Kojima anticipates a method and system for generating a finite element mesh to resolve a joint problem using first and second finite analysis programs with feature limitations very identical to the claimed invention (Abstract and Summary of the Invention). According to Kojima, the mesh generation method includes

Identifying the joint problem through a graphical user interface to identify the joint (col. 3, lines 10-49),

Providing program input values to the first program

Executing the first finite analysis program to obtain the first program output values including the joint data set,

Providing the second finite analysis data and executing the finite analysis program with the provided joint data,

And providing the first finite analysis program with first program input values including the joint data set as claimed (col. 7, lines 45-65, col. 8, lines 4-23, col.10, lines 5-47, cols. 13-15, for example).

As per claim 2, Kojima anticipates an iterative process to meet convergent criteria (col. 3, line 63 to col. 4, line 35).

As per claim 3, Kojima anticipates the claimed limitation for automatic processing.

As per claim 4, Kojima anticipates a plurality of mesh generation applications well-known in the art, such as structure analysis, engineering problems, flow analysis, and others problems as claimed.

As per claims 5-15, Kojima anticipates limitations as claimed for joining meshes and mesh generation.

As per claim 16, Kojima anticipates a method and a system for generating a finite element mesh to resolve a joint problem using first and second finite analysis programs with feature limitations very identical to the claimed invention (Abstract and Summary of the Invention). According to Kojima, the mesh generation system with means including program codes and procedures to perform steps:

Identifying the joint problem through a graphical user interface to identify the joint (col. 3, lines 10-49),

Providing program input values to the first program

Executing the first finite analysis program to obtain the first program output values including the joint data set,

Providing the second finite analysis data and executing the finite analysis program with the provided joint data,

And providing the first finite analysis program with first program input values including the joint data set as claimed (col. 7, lines 45-65, col. 8, lines 4-23, col.10, lines 5-47, cols. 13-15, for example).

Similarly, claims 17-29 are directed to the apparatus for performing steps in claims 1-15 above. Kojima also anticipates means for performing steps as above. Claims 17-29 are thus rejected in like manner.

Similarly, claims 30-46 are directed to a computer program product implemented in the system claims above. Claims 30-46 are also rejected in like manner.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. US patent no. 5,136,687, issued to Edelman et al, on 08/1992
2. US patent no. 5,581,468, issued to White et al, on 12/1996
3. US patent no. 5,677,846, issued to Kumashiro, on 10/1997
4. US patent no. 5,940,309, issued to White et al, on 08/1999
5. US patent no. 6,198,979, issued to Konno, Kouichi, on 03/2001
6. US patent no. 6,307,555, issued to Lee, on 10/2001
7. US patent no. 6,515,660, issued to Marshall et al, on 02/2003
8. US patent no. 6,611,736, issued to Waite et al, on 08/2003

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai Q. Phan whose telephone number is 571-272-3783. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean Homere can be reached on 571-272-3780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

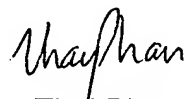
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

June 26, 2005

A handwritten signature in black ink, appearing to read 'Thai Phan', is positioned above the printed name.

Thai Phan
Patent Examiner